Amendment to the Claims

1. (Previously presented): A method of purifying a protein of interest from its fusion analog, said method comprising:

a. Obtaining a protein solution comprising the protein of interest and its fusion analog;

b. Adjusting the pH and/or ionic strength of the protein solution with an appropriate buffer for the Hydrophobic Charge Induction Chromatograph (HCIC) resin used in step c;

c. Contacting the protein solution with an HCIC resin column for a time sufficient to allow binding of the protein of interest and its fusion analog to the resin;

d. Washing the HCIC resin with an appropriate buffer; and

e. Eluting the protein of interest from the HCIC resin by a pH gradient; wherein said protein of interest is substantially free of its fusion analog.

2. (Original): The method of claim 1 wherein the protein solution is a fermentation broth.

3. (Previously presented): The method of claim 2 wherein the broth is clarified.

4. (Original): The method of claim 1 wherein the protein of interest is secreted.

5. (Cancelled)

6. (Original): The method of claim 1 wherein the protein of interest is an immunoglobulin or fragment thereof.

7. (Original): The method of claim 6 wherein the immunoglobulin is a monoclonal antibody.

8. (Original): The method of claim 6 wherein the immunoglobulin is an F $(ab')_2$ fragment.

9. (Original): The method of claim 6 wherein the immunoglobulin is a Fab' fragment.

10. (Original): The method of claim 1 wherein the protein of interest is an enzyme.

11. (Original): The method of claim 1 wherein the fusion analog thereof comprises at least one glucoamylase protein covalently linked to the amino terminus of said protein of interest.

12. (Original): The method of claim 11 wherein there may be between one and four glucoamylase proteins attached to said immunoglobulin.

13. (Original): The method of claim 1 wherein the protein of interest is a fragment of an immunoglobulin.

14. (Cancelled)

15. (Original): The method of claim 1 wherein the pH gradient begins at a pH of about 2.5 and ends at a pH of about 8.

16. (Original): The method of claim 1 wherein the pH gradient comprises a step pH gradient.

17. (Original): The method of claim 16 wherein the step pH gradient comprises between two and six steps.

18. (Original): The method of claim 1 further comprising size exclusion chromatography.

19. (Original): The method of claim 1 further comprising protein A chromatography.

Claims 20 - 22. (Cancelled)

23. (Original): The method of claim 18 in which the HCIC resin is in a radial flow column.

24. (Original): The method of claim 1 in which the HCIC resin is in an expanded bed column.

25. (Currently amended): A method of purifying an immunoglobulin, said method comprising:

a. Obtaining a protein solution comprising the immunoglobulin;

b. Adjusting the pH and/or ionic strength of the protein solution with an appropriate buffer for the Hydrophobic Charge Induction Chromatograph (HCIC) resin used in step c;
c. Contacting the protein solution with an HCIC resin for a time sufficient to allow binding of the immunoglobulin to the resin;
d. Washing the HCIC resin with an appropriate buffer; and
e. Eluting the immunoglobulin from the HCIC resin by a pH gradient, wherein said pH gradient is incrementally decreased and the immunoglobulin is a $F(ab')_2$ fragment and/or a Fab' fragment and said immunoglobulin is substantially free of other proteins.

Claims 26 – 28. (Cancelled)

29. (Previously presented): The method of claim 25, wherein the immunoglobulin is a $F(ab')_2$ fragment.

30. (Previously presented): The method of claim 25, wherein the immunoglobulin is a Fab' fragment.